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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,967	07/21/2003	Ioana M. Rizoiu	BI9001DIV2CON	6283

7590 04/16/2007
Stout, Uxa, Buyan & Mullins, LLP
Suite 300
4 Venture
Irvine, CA 92618

EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
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3735

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/624,967

Applicant(s)

RIZOIU ET. AL.

Examiner

david shay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 22, 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 69-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 69-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 21, _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

With regard to the applicant's statements concerning the interview summary are noted, however, the examiner must clarify that while the originally filed disclosure does appear to provide support for the inclusion of a second nozzle on the device, this does not provide support for the simultaneous use of the nozzles, as set forth in the claims and as objected to. The examiner has obtained the originally filed drawing Figures from U.S. Patent Application 08/985,563, which do contain element 75. Accordingly, the proposed correction filed August 7, 2006 are approved.

Applicant argues that a lack of criticality should not be used as the standard of whether a motivation existed in the prior art. The examiner must respectfully note that this is not the standard which the examiner has used. The examiner has merely noted the lack of criticality, while also providing the motivation of enabling the varying of the density of particles while still maintaining the control over the size distribution thereof. Applicant also notes that the examiner has provided no prior art which discloses the use of this motivation. The examiner acknowledges this, however, it is not clear how this alone renders the rejection improper. The examiner notes the holding in *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11, which clearly states that to duplicate parts for multiplied effect (e.g. greater particle density) is an obvious matter of choice. The examiner must respectfully note that the examiner has provided a motivation which

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "outputting atomized fluid particles from a plurality of atomizers"; "an angle of incidence from a first one of the plurality of atomizers"; "an angle of incidence from a first one of the plurality of atomizers is different from

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an angle of incidence from a second one of the plurality of atomizers”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The amendment filed February 7, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone” and the incorporation by reference of the contents of the parent cases.

Applicant is required to cancel the new matter in the reply to this Office Action.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 68-94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure is silent on “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone”.

Claims 69-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claims the exact meaning of the term “placing a peak concentration of electromagnetic energy” is unclear, as the term lacks positive antecedent basis in the originally filed disclosure. For the purposes of examination, this term will be read as “a concentration of energy which is higher than the concentration of energy outside of the interaction zone”.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizioiu et al (SPIE 1994 “Morphological...”). Rizioiu et al (SPIE 1994 “Morphological...”) teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizioiu et al (SPIE 1994 “Morphological...”), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizioiu et al (SPIE 1994 “New Laser...”). Rizioiu et al (SPIE 1994 “New Laser...”) teaches the application of a water and air spray with infra red laser energy. but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizioiu et al (SPIE 1994 “New Laser:...”), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no

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unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoïu et al (DENT 1994). Rizoïu et al (DENT 1994) teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoïu et al (DENT 1994), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Claims 69-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoïu et al (SPIE 1993). Rizoïu et al (SPIE 1993) teaches the application of a water and air spray with infra red laser energy but does not teach a plurality of atomizers. It would have been obvious to the artisan or ordinary skill to employ a plurality of atomizers to produce the fluid particles in the method of Rizoïu et al (SPIE 1993), since this is not critical; is well within the skill of one having ordinary skill in the art; provides no unexpected result; and would enable varying the density of particles while still maintaining the control over the size distribution thereof, thus producing a method such as claimed.

Applicant's arguments filed February 22, 2007 have been fully considered but they are not persuasive. The arguments are not persuasive for the reasons set forth above.

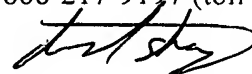
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II, can be reached on Monday, Tuesday, Wednesday, Thursday, and Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID M. SHAY
PRIMARY EXAMINER
GROUP 330